

REMARKS

In the Office Action of April 20, 2006, claims 8, 23, 27, 30, 33, 37 and 39 were objected to, for using the terms "super-bright," "wide-based" and "low profile."

Claim 8 has been amended to clarify the language to claim a planar-shaped light source providing a wide angle of view. Support is found in para. 0029 and 0032. If one of ordinary skill in the art understands a wide angle of view to be about 28 degrees from horizontal and about 62 degrees from perpendicular, it will be seen that the light sources in Chien and Mantha would not provide such a wide angle of view and light sources of Glatt are only point sources and not planar-shaped. Claims 23, 27, 30, 33, 37 and 39 have been amended similarly to claim 8.

A further objection was made to the word "enabling" in these claims and such recitation has been changed to recite a "means for flashing" which is a proper form of claiming under 35 USC 112, sixth paragraph.

Claims 12, 26 and 36 were objected to as lacking an antecedent and these claims have been amended to recite "substrates supporting said light sources" which finds an antecedent in claims 1 and 20 from which these claims depend.

An amendment has been made to the description and the claims to correct the description of the circuit boards as "flexible." The circuit boards are formed in a curved shape, but once assuming that shape are not flexible. The curved shape is shown in the drawings, notably Figs. 2A and 3. The specification and claims 12 and 26 have been corrected accordingly.

In the Office Action of April 20, 2006, claim 1 was rejected over Glatt (US 5,758,947) in view of Chien (US 5,570,946) and Mantha (US 5,743,621). There were no objection to claim 1 under 35 U.S.C. 112.

The undersigned has reviewed the Examiner's reading of claim 1 on Glatt. The Examiner's reading is incorrect in the following respects:

1. The light sources of claim 1 are not met by Glatt because the light sources in claim 1 include a plurality of lighting elements, whereas Glatt's LEDs 14 are but single lighting elements. They are not multi-element lighting sources.

2. Furthermore, the light sources of claim 1 are now defined as planar-shaped. Support is found in para. 0029. The light sources of Glatt are not planar-shaped.

3. The timing circuitry of claim 1 is included in the light sources of claim 1. Support is found in Fig. 6 and accompanying description in the present application. In Glatt, the timing circuitry (Fig. 5) would be disposed in a separate housing 26 and not included within the lighting sources 14.

4. In Glatt, it is the separate LEDs around the helmet that are being controlled by the timing circuitry and the motion is around the helmet. In the present invention, it is the lighting elements within the light sources that are being controlled and the motion is within each light source and window.

Thus, the Examiner's reported difference that the light sources in Glatt do not contain multiple lighting elements does not capture all of the differences between Glatt and the claimed invention.

The Examiner correctly reports that there are no images in Glatt and in fact, there are no windows.

Mantha is cited by the Examiner as supplying a plurality of light elements 43 within a light source. These are disclosed in Mantha as providing a constant illumination or "flashing light from each diode." There is no circuitry disclosed for a sequence of flashing among the LEDs. Mantha provides a window but no image on the window.

Lastly, Chien is cited as disclosing a light source with a graphical image. However, such image is excluded by the definition of graphical image in the specification

which reads: The term "graphical" should be understood here to exclude mere letters or numbers as shown in the prior art, and generic shapes such as circles, squares and triangles. The star shape of Chien is considered to be generic and not within the definition of graphical in this application because it was described in the Background of the Invention, where it was said:

Chien, U.S. Pat. No. 5,871,271, shows a cycling helmet with hard shell outer layer and a protective shock absorbing layer in which LEDs in star shapes and other shapes are proposed to be mounted on circuit boards that fit within recesses in the helmet. In one embodiment, the LED's are placed inside of enclosures with opaque and translucent portions to form illuminated star shapes. These shapes are quite small and intended to impart a shape to an individual LED element.

Thus, the collective art does not show or suggest planar-shaped lighting sources including both multiple lighting elements and timing circuitry in the lighting sources used to illuminate graphical images (fanciful images) on a recreational helmet. The assembly of the components from the cited references is a catalog of parts that does not provide all of the claim limitations or a motivation for combining the claims limitations to arrive at the claimed invention.

With respect to claims 8 to 18 rejected over the same references, Applicant would point out the following additional patentable differences:

Claim 8 has been amended to clarify the language to claim a planar-shaped light source providing a wide angle of view. If we understand wide angle of view to be about 28 degrees from horizontal and 62 degrees from perpendicular, it will be seen that the light sources in Chien and Mantha would not provide such a wide angle of view and light sources of Glatt are only point

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sources and not planar-shaped. Claims 23, 27, 30, 33, 37 and 39 have been similarly amended.

Claim 10 further claims that the light sources are encapsulated in at least one lighting panel by a light-transmissive encapsulating material. The office action cites lens 76 in Glatt. Lenses 76 are not encapsulating material, they are windows, which also appear in the claim 1, from which claim 10 depends.

Claims 2-4, 19 and 23-32 were rejected over the same art without reading the claims on the art. Applicant responds that none of the art shows lighting elements of different colors within the same lighting source as claimed in claim 3.

Claims 5-7 and 33-41 were rejected over the same art without reading the claims on the art.

The base reference Glatt does not meet the limitation of claim 5, wherein the windows have an area at least three times the area of any light-emitting element contained within the light source and none of the art meets the limitation of claim 6 wherein lighting elements of different colors are disposed within a light source.

Claims 23, 27, 30, 33, 37 and 39 are patentable for the same reasons as claim 8 and have been improperly grouped in the rejection with claims 2-4 and 19.

Claims 32, 35 and 41 are patentable for the same reasons as claim 10 and have been improperly grouped in the rejection with claims 5-7.

CONCLUSION

In view of the Amendment and Remarks, reconsideration of the patent application is respectfully requested. After the amendment, claims 1-41 are now pending and a Notice of Allowance for these claims is earnestly solicited.

No fee is believed to be due, but if any other fee is deemed to be due or any credit due, please the Commissioner is authorized to charge Quarles & Brady deposit account no. 17-0055.

Respectfully submitted,

By:


Michael J. McGovern
Quarles & Brady LLP
411 East Wisconsin Avenue
Milwaukee, WI 53202
(414) 277-5725
Attorney of Record